IN THE CLAIMS

1. (currently amended) A method for creating a two-dimensional representation of a revolved three-dimensional solid, said method comprising the steps of:

(a) selecting the three-dimensional solid for which the associative two-dimensional section is to be generated;

(b) inputting a computer aided drafting (CAD) compatible representation of the selected three-dimensional solid using an input device;

generating a single equivalent profile curve for each revolved face of the three-dimensional solid in a two-dimensional plane; and

(c) identifying a seed revolved edge;

(d) identifying a revolved face adjacent to the seed revolved edge;

(e) identifying a second revolved edge adjacent the revolved face;

(f) determining an equivalent profile curve for the revolved face extending between the seed revolved edge and the second revolved edge;

(g) setting the seed revolved edge equal to the second revolved edge;

(h) performing steps (d) through (f) until the second revolved edge returns to the seed revolved edge; and

outputting the two dimensional representation based on the determined equivalent profile curve curves using an output device.

2. (canceled)

3. (currently amended) A method in accordance with Claim 2 Claim 1 wherein said step of querying the three-dimensional solid further comprises the steps of further comprising:

creating a trace list including each face identified and traversed while querying the three-dimensional solid; and

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querying the solid with a loop-wise sequence to generate a contiguous path of profile curves.

4. (previously presented) A method in accordance with Claim 3 wherein the three-dimensional solid includes one of a toroidal and spherical face, said step of generating a single equivalent profile curve further comprising the step of creating an arc as an equivalent profile curve.

5. (original) A method in accordance with Claim 4 wherein the three-dimensional solid includes one of a conical, planar, or cylindrical face, said step of generating a single equivalent profile curve further comprising the step of creating a line as an equivalent profile curve.

6. (original) A method in accordance with Claim 5 wherein the three-dimensional solid includes a revolved-spline face, said step of generating a single equivalent profile curve further comprising the step of creating a spline as an equivalent profile curve.

7. (currently amended) An apparatus for generating a two-dimensional representation of a three-dimensional solid, said apparatus comprising a processor programmed to:

receive a computer aided drafting (CAD) compatible representation of the selected three-dimensional solid from an input device;

generate a single equivalent profile curve for each revolved face in a two-dimensional plane using an identified seed revolved edge, an identified revolved face adjacent to the seed revolved edge, an identified second revolved edge adjacent the revolved face, and a determined equivalent profile for each revolved face that extends between the revolved edges adjacent each revolved face; and

output the two-dimensional representation based on the determined single equivalent profile curve curves to an output device.

8. (original) An apparatus in accordance with Claim 7 wherein the three-dimensional solid has cyclic symmetry, said processor further programmed to generate the two-dimensional representation without generating intersection lines within the three-dimensional solid.

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9. (original) An apparatus in accordance with Claim 8 wherein said processor further programmed to follow a loop-wise sequence to create a contiguous path of profile curves.

10. (original) An apparatus in accordance with Claim 9 wherein said processor further programmed to identify a seed revolved edge bordering a face and to query the three-dimensional solid from the revolved edge to each adjacent face to circumscribe the three-dimensional solid.

11. (previously presented) An apparatus in accordance with Claim 10 wherein the three-dimensional solid includes one of a toroidal and spherical face, said processor further programmed to generate an arc.

12. (original) An apparatus in accordance with Claim 10 wherein the three-dimensional solid includes one of a conical, planar, and cylindrical face, said processor further programmed to generate a line.

13. (original) An apparatus in accordance with Claim 10 wherein the three-dimensional solid includes a revolved-spline face, said processor further programmed to generate a spline.

14. (currently amended) A system for creating a two-dimensional representation of a three-dimensional solid, said system comprising;

a client system comprising a browser;

a data storage device for storing information relevant to a plurality of users; and

a server system configured to be coupled to said client system and said data storage device, said server system programmed to:

receive a computer aided drafting (CAD) compatible representation of the selected three-dimensional solid from an input device;

generate a single equivalent profile curve for each revolved face in a two-dimensional plane using an identified seed revolved edge, an identified revolved face adjacent to the seed revolved edge, an identified second revolved edge adjacent the revolved face, and a determined equivalent profile for each revolved face that extends between the revolved edges adjacent each revolved face; and

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output the profile curve to an output device.

15. (previously presented) A system in accordance with Claim 14 wherein said server system further programmed to follow a loop-wise sequence to create a contiguous path of profile curves.

16. (previously presented) A system in accordance with Claim 15 wherein said server system further programmed to create the two-dimensional representation without generating intersection lines extending through the three-dimensional solid.

17. (previously presented) A system in accordance with Claim 16 wherein said server system further programmed to identify a seed revolved edge.

18. (previously presented) A system in accordance with Claim 17 wherein the three-dimensional solid has cyclic symmetry, said server system further programmed to query the three-dimensional solid from the identified seed revolved edge through each subsequent adjacent face until returning to the seed revolved edge.

19. (previously presented) A system in accordance with Claim 18 wherein the three-dimensional solid has one of a toroidal face and a spherical face, said server system further programmed to generate an arc.

20. (previously presented) A system in accordance with Claim 19 wherein the three-dimensional solid has one of a conical face, a planar face, and a cylindrical face, said server system further programmed to generate a line.